

# DX4500/DX4600 Series Digital Video Recorder

## 8/16 CAMERA INPUTS, 250 GB–4 TB STORAGE, FLEXIBLE SEARCH CAPABILITIES

### Product Features

- 8- or 16- Channel Digital Video Recorder
- MPEG-4 Compression
- Up to 704 x 480 (NTSC), 704 x 576 (PAL) Recording Resolution
- Up to 480 Images per Second (IPS) Recording Rate
- Up to 4 TB of Hard Drive Storage
- Partition Recording
- Channel Resolution, Quality, and Frame Rate Settings Configurable per Individual Camera
- Picture-In-Picture for Multiscreen Live and Playback Video
- Remote Client is Compatible with Windows® XP, Windows 2000, and Windows Vista®
- Web Client Support
- Support for Continuous, Motion, Alarm, and Scheduled Recording
- Local and Remote PTZ Control
- Third-Party PTZ Protocols

A fully featured and fully affordable entry-level digital video recorder (DVR), the **DX4500/DX4600** Series is the next generation in DVRs. Equipped with an embedded operating system, it offers camera capacity, features, and functionality exceeding other DVRs. The **DX4500/DX4600** is designed for the entry-level market that requires 8 or 16 camera inputs; greater internal hard drive storage capacity; fast frame rate recording; and powerful playback, search, and export capability. The **DX4500/DX4600** not only replaces the traditional VCR and multiplexer combination, but it also offers the benefits derived from the latest in digital video processing.

Designed to work with today's broadband networks, the **DX4500/DX4600** uses MPEG-4 compression, allowing you to view and control the DVR across local or wide area networks. Recording at resolutions of up to 704 x 480 (4CIF), the **DX4500/DX4600** captures crystal clear pictures, creating effective footage for later use and retrieval. Imported video is easily reviewed using the export player. Each DVR input channel can be configured individually to meet a specific security application requirement for video retention. Video critical to investigation and archiving is easily exported to a USB memory device or to an optional CD-RW or DVD±RW device.

Operation of the unit is made easy through the front panel, remote control keypad, or mouse. The **DX4500/DX4600** remote client allows live viewing and video playback for a maximum of sixteen **DX4000** series servers simultaneously. This display can consist of multiple **DX4500/DX4600** servers and one **DX4004** server. User-configurable



- Up to 4 Audio Inputs and 1 Audio Output
- Pre- and Post-Alarm Recording
- Up to 16 Alarm Inputs and Up to 4 Relay Outputs
- Main Monitor for VGA or Analog Display, Analog Spot Monitor
- Multilingual On-Screen Display
- USB, CD-RW, or DVD±RW for Video Export
- Event Notifications by E-mail, Emergency Agent, or Sounder
- Time/Date, Bookmark, Event, and Pixel Search

disk partitioning is used to allocate specific hard disk space for storing continuous video data, and event-initiated video data. The retention time can be different for retaining continuous recorded video, and event-initiated recorded video.

For surveillance applications requiring PTZ capability, the **DX4500/DX4600** addresses and controls pan/tilt/zoom (PTZ) equipment such as Spectra® domes and Esprit® positioning systems, or third-party cameras. With the ability to trigger recording and in response to events (such as alarm inputs, motion detection, and video loss), the **DX4500/DX4600** Series becomes an automated monitoring engine as well.

The **DX4500/DX4600** video outputs provide for efficient control and effective deterrence. The choice of VGA or composite main monitor output provides flexibility for the user. The main monitor output can be adjusted to display one, four, nine, or sixteen cameras, or it can be adjusted for a custom display. The **DX4500/DX4600**'s spot monitor output can be used for public viewing or alarm call-up.

The **DX4500/DX4600** is designed to deliver robust and reliable performance for security professionals. From the incorporation of watermarking technology to prevent alterations to captured video, to the ability to capture log entries, to the inclusion of Pelco's world renowned customer service promise, the **DX4500/DX4600** embodies the ideal entry-level DVR to protect people and assets.



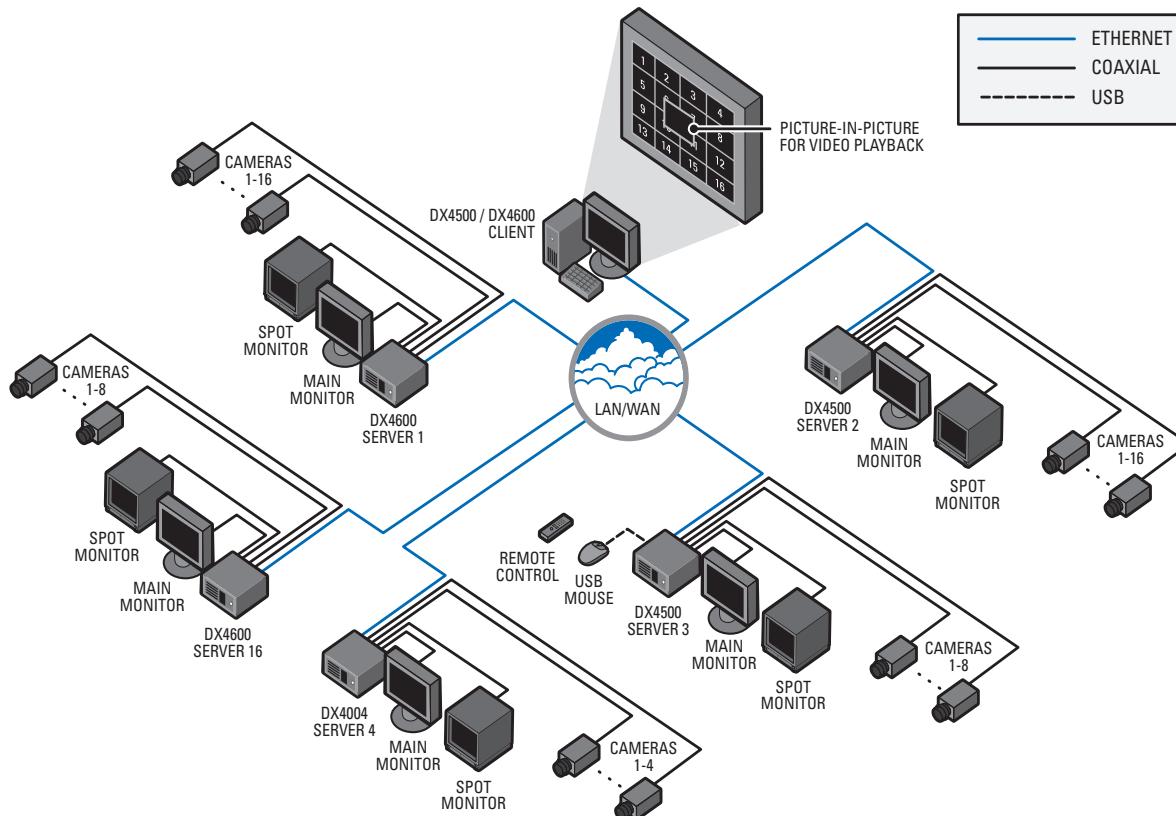
# TECHNICAL SPECIFICATIONS

## APPLICATIONS

As the next generation DVR, the **DX4500/DX4600** is the solution for small- to multiple-site applications. The remote client-to-server connectivity allows operation from a remote location, connecting multiple servers simultaneously. The remote client can be used to operate and administer both **DX4500/DX4600** and **DX4000** servers installed at multiple locations. For example, small sites can use the **DX4000** to record and display video from 1 to 4 cameras; medium sized sites can use the **DX4500/DX4600** to record and display video from 8 or 16 cameras. Additionally, the remote client is an application for the Windows Vista® operating system and supports all editions.

The remote client can export a video data file in AVI or native format from a **DX4500/DX4600** server, or in AVI format from a **DX4000** server. It can also store the file at a specified destination on the remote computer's hard drive or other allocated storage media. Use the Windows Media® Player or similar viewer to view video exported in AVI format. Use the **DX4500/DX4600** Export Viewer to playback video exported in native format or to view authenticated watermarked video. Use the **DX4000** Backup Player to view authenticated watermarked video.

The remote client can play back video from the live view or search modes of the **DX4500/DX4600**; the **DX4000** can play back video from the remote client's date/time search mode. For the **DX4000**, the playback mode, playback controls, and playback speed and volume controls are available in the remote client's date/time search mode. With only a few clicks of a button, the remote client can quickly print a **DX4500/DX4600** live view playback/search mode image or a **DX4000** date/time search mode playback video image.



### IMPORTANT NOTE. PLEASE READ.

The network implementation is shown as a general representation only and is not intended to show a detailed network topology. Your actual network will differ, requiring changes or perhaps additional network equipment to accommodate the system as illustrated. Please contact your local Pelco Representative to discuss your specific requirements.

# TECHNICAL SPECIFICATIONS

## ELECTRICAL/VIDEO

Input Voltage	100-240 VAC $\pm 10\%$ , 50/60 Hz, autoranging	
Power Consumption	Maximum 85 W	
Signal System	NTSC/PAL, switchable	
Operating System	Linux®-Embedded	
Recording Resolutions	NTSC                    PAL 704 x 480    704 x 576 704 x 240    704 x 288 352 x 240    352 x 288	
Video Outputs	1 main VGA or analog 1 analog spot (displays up to 4 cameras)	
Video Compression	MPEG-4	
Remote Connection	LAN/WAN TCP/IP 10/100 Mbps Network port	
Bandwidth Throttle	Server-based, 128 Kbps to 100 Mbps	

## THIRD-PARTY PTZ COMPATIBILITY

Third-Party PTZ Device	Protocol
Bosch® AutoDome® Day/Night	Bosch_AutoDome
Samsung™ SCC 641	Samsung_SCC
LG™ LPT-SD163HM	LG_SD168
Baxall™ BPD1-RAS916	Pelco P
American Dynamics™ Speed Dome Ultra VII	Pelco P

## MAXIMUM IPS RECORDING

Model	Format	NTSC IPS		PAL IPS	
		Total	Per Camera	Total	Per Camera
DX4508	CIF	120	15	100	12.5
	2CIF	60	7.5	48	6
	4CIF	30	3	24	3
DX4516	CIF	240	15	200	12.5
	2CIF	120	7.5	96	6
	4CIF	60	3	48	3
DX4608	CIF	240	30	200	25
	2CIF	120	15	100	12.5
	4CIF	60	7.5	48	6
DX4616	CIF	480	30	400	25
	2CIF	240	15	200	12.5
	4CIF	120	7.5	96	6

## AUDIO

Input	Line-level input, 8 Kbps
Output	Line-level output
Audio Inputs	2 with DX4500, 4 with DX4600, RCA sockets
Audio Output	1 RCA socket

## MECHANICAL

Connectors	
Video Inputs	8 or 16, BNC
Video Outputs	8 or 16, BNC, looping
Alarm Input	8 or 16 N.C. or N.O.
Relay Output	2 or 4, N.C. or N.O.
TCP/IP port	30 VDC/1 A 125 VAC/0.5 A
Serial Port	RJ-45, 10/100 Mbps
USB Port	2 RS-422/RS-485 for PTZ control
	3, USB 2.0 (1 front, 2 rear)

## GENERAL

Operating Temperature	32° to 95°F (0° to 35°C)
Relative Humidity	Maximum 80%, noncondensing
Dimensions	19.50" D x 16.88" W x 3.75" H (49.5 x 42.9 x 9.5 cm)
	(depth includes jog dial to power cord; height includes an additional 0.25" to accommodate rubber feet)

Unit Weight (approximate)	Unit	Shipping
DX4508-250	14.30 lb (6.5 kg)	21 lb (9.5 kg)
DX4508CD-2000	19.54 lb (8.7 kg)	26 lb (11.8 kg)
DX4516-250	14.84 lb (6.7 kg)	21 lb (9.5 kg)
DX4516CD-2000	20.08 lb (9.1 kg)	27 lb (12.2 kg)
DX4616CD-250	17.04 lb (7.7 kg)	23 lb (10.4 kg)
DX4616CD-4000	21.60 lb (9.8 kg)	28 lb (12.7 kg)
DX4616DVD-250	17.24 lb (7.8 kg)	24 lb (10.9 kg)
DX4616DVD-4000	21.80 lb (9.9 kg)	28 lb (12.7 kg)

## CERTIFICATIONS

- CE, Class A
- FCC, Class A
- UL/cUL Listed

## REMOTE PC CLIENT APPLICATION

### Minimum PC Requirement

Operating System	Windows 2000 (SP4) or above and DirectX® 8.1 or higher
Processor	Intel® Pentium® 4
Memory	512 MB
Video Card	VGA card with 64 MB video RAM or greater

### Recommended PC Requirements

Operating System	Windows Vista or Windows XP (SP2)
Processor	Intel Pentium 4 (or higher), 2.4 GHz
Memory	512 MB
Video Card	VGA card with 128 MB video RAM
Remote Administration	Full remote control through TCP/IP network

**Notice:** Judgment as to the suitability of the products for users' purposes is solely the users' responsibility. Users should refer to the Operation manuals for cautionary statements regarding user selected options and how they might affect video quality. Users shall determine the suitability of the products for their own intended application, picture rate and picture quality. In the event users intend to use the video for evidentiary purposes in a judicial proceeding or otherwise, users should consult with their attorney regarding any particular requirements for such use.

# TECHNICAL SPECIFICATIONS

## PRODUCT MODELS AND FEATURES

Feature	DX4508	DX4516	DX4608	DX4616
IPS	120	240	240	480
Pixel Search	No	No	Yes	Yes
Maximum Hard Drive Storage (GB)	2000	2000	4000	4000
Audio Inputs	2	2	4	4
Alarms Inputs	8	16	8	16
Relay Outputs	2	2	2	4
Standard Optical Disk Drive	None	None	CD-RW	CD-RW
Optional Optical Disk Drive	CD-RW/DVD±RW	CD-RW/DVD±RW	DVD±RW	DVD±RW

## MODEL NUMBERS

Use the following table to specify and customize your DX4500/DX4600. For example, the model number for an 8-channel DX4500 with 250 GB of internal storage and an optional CD-RW optical drive is DX4508CD-250. The model number for a 16-channel DX4600 with 250 GB of internal storage and a CD-RW optical drive is DX4616CD-250.

## CREATING MODEL NUMBERS

DX4XXXXX - XXXX			
Models	Channels	Disk Drive	Storage In GB
5 (DX4500)	08	CD (CDRW*)	250
6 (DX4600)	16	DVD (DVD±RW†)	500
			750
			1000
			1500
			2000
			2250‡
			3000‡
			4000‡

\* Standard for the DX4600.

† The DVD±RW drive is optional for the DX4500 and DX4600.

The DVD±RW drive supports double-layer recording.

‡ Drive configurations for only the DX4600.

## SUPPLIED ACCESSORIES

Power cords (USA and European), USB mouse, remote control, remote client application CD, alarm and relay terminal blocks, and rack mounting kit.

## COMPATIBLE PRODUCTS

Esprit Positioning Systems

Spectra Domes

## OPTIONAL ACCESSORIES

DX4546HDD250KIT	DX4500/DX4600 SATA 250 GB upgrade
DX4546HDD500KIT	DX4500/DX4600 SATA 500 GB upgrade
DX4546HDD750KIT	DX4500/DX4600 SATA 750 GB upgrade
DX4546HD1000KIT	DX4500/DX4600 SATA 1000 GB upgrade
DX4546-CDKIT	CD drive upgrade for the DX4500
DX4546-DVDKIT	DVD drive upgrade for the DX4500/DX4600



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